

Figure C-16. A photographic image of sample P9GT08016G in a dish (left) in a jar (right).

Waste Description for P9GT08016G

Sample P9GT08016G was collected on February 13, 2004 at 17:40 hr at a reach of 8.81 ft, an angle of 12 degrees, and a depth of 12.47 ft. The scoop was #1247. The justification for this particular sample was recorded as soil that was located under a drum next to the probe cluster. The drum was known to contain graphite pieces. The material in the transfer cart was described as mostly light-colored soil with areas of high moisture. The condition of the drum liner that contained the graphite pieces was recorded as mostly dirty with darker moisture content. The interstitial soil characteristics were described as granular. No free liquid was noted. The sample characteristics were detailed as moist granular soil located beneath a steel drum containing graphite pieces.

Description of Dig Face P9GT08016G

The sample was collected from beneath a steel drum containing graphite pieces.

Photographic Description and Subsampling Notes for P9GT08016G

The sample appeared to be clean soil with no major foreign debris apparent except a few minor pieces of rusted drum. Subsamples free of any foreign debris were easily acquired. Minor pieces of corroded drum were easily segregated. Soil was still moist causing a darker appearance. Vermiculite, plastic, paper, or sludge were not observed.

Table C-17. Data summary table for sample P9GT08016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT08016G	Soil, appears clean	0.407 ± 0.038	<4.9	0.74 ± 0.35	3.8 ± 1.9
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT08016G	8.53 ± 0.12	$5,300 \pm 1,100$	$8,900 \pm 1,400$	$7,200^a$	N/D

a. The K_d value does not include a \pm value because only one measurement was available.



Figure C-17. A photographic image of sample P9GT09016G in a dish (left) in a jar (right).

Waste Description for P9GT09016G

Sample P9GT09016G was collected from scoop #1246 on February 13, 2004 at 17:40 hr at a reach of 8.81 ft, an angle of 12 degrees, and a depth of 12.47 ft. The justification for this particular sample was recorded as soil that was located under a steel drum that contained graphite pieces and located next to the probe cluster. The soil is described as light-colored soil with areas of high moisture. The interstitial soil characteristics were described as granular and are the same as noted for the previous sample (P9GT08016G). No free liquid was noted. The sample characteristics were detailed as moist soil.

Description of Dig Face P9GT09016G

The same description applies as provided for sample P9GT08016G.

Photographic Description and Subsampling Notes for P9GT09016G

The sample appeared to be a clean soil sample. No visual signs of rust or sludge were noted. The sample was described as visually clean soil.

Table C-18. Data summary table for sample P9GT09016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT09016G	Soil, appears clean	0.833 ± 0.076	<5.2	2.9 ± 3.9	2.8 ± 2.3



Figure C-18. A photographic image of sample P9GT10016G in a dish (left) in a jar (right).

Waste Description for P9GT10016G

Sample P9GT10016G was collected from scoop #1281 on February 14, 2004 at 22:42 hr at a reach of 9.42 ft, an angle of 11 degrees, and a depth of 14.79 ft. This scoop of material was acquired after four clean scoops of soil were removed from just to the right of the P9-20 probe cluster. The material was described as very moist granular soil located just to the left of the drum containing wood pieces and just to the right of the probe cluster. The drum containing wood blocks located at an angle of 10 degrees and a depth of 13 ft, when removed, uncovered a void that contained standing water. Soil was used to absorb the water. Scoop #1281 was acquired from 11 degrees and 1.79 feet below the void. It was suspected that some of the free-standing water was absorbed by the nearby soil. No sludge was present in the sample. The interstitial soil characteristics were described as fine to medium grade. According to the hue guide chart (Geological Society of America 1991), the sample was recorded as 5YR 6/4-10YR 5/4 (light brown to light yellow brown). No free liquid was present, although the sample was moist to very moist. It was unknown whether the moisture was due to standing water absorbed earlier, or was the original state of the material in that location of the pit. No organic sheen was observable. The sample material consisted of fine to medium granules of soil.

Description of Dig Face P9GT10016G

Exposed dumped drums and drum liners were present nearby. A rusted drum and a stained bag were present. The integrity of nearby drums was described as poor as a result of being thoroughly corroded and rusted and exposed to significant moisture. The drum liners observed were listed as being in conditions ranging from fair to poor. Moisture was present in the sampling region. The soil did not appear to be stained, only moist. Cardboard pieces and rusted metal pieces were listed as nearby debris. Clear plastic bags with opaque, stained, yellow tape were also present.

Photographic Description and Subsampling Notes for P9GT10016G

The sample appeared to be moist soil with no obvious or visible foreign debris. No rust or corroded drum pieces were present.

Table C-19. Data summary table for sample P9GT10016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT10016G	Soil, possible backfilled clean soil sample	1.122 ± 0.067	<5.4	1.42 ± 0.53	3.4 ± 1.3
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT10016G	8.61 ± 0.07	732 ± 96	$1,580 \pm 130$	N/D	$1,300^a$
a. The K_d value does not include a \pm value because only one measurement was available.					

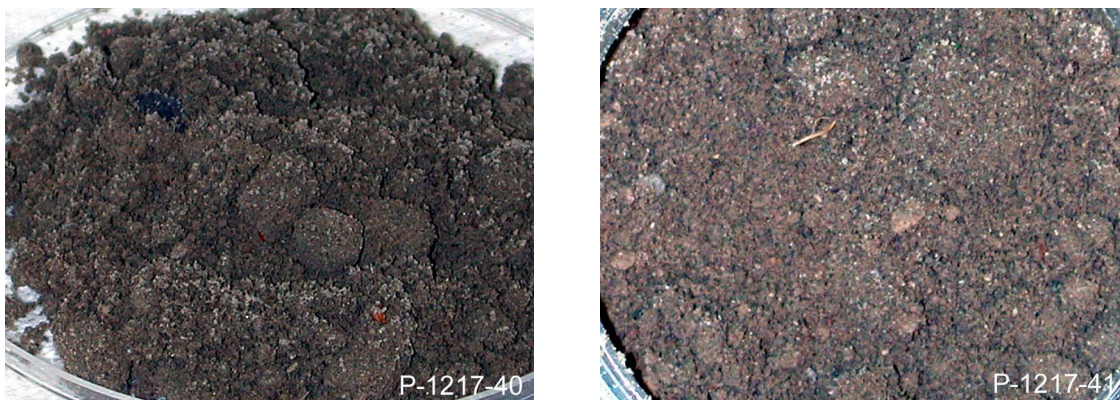


Figure C-19. A photographic image of sample P9GT11016G in a dish (left) in a jar (right).

Waste Description for P9GT11016G

Sample P9GT11016G was collected from scoop #1281 on February 14, 2004 at 22:42 hr at a reach of 9.42 ft, an angle of 11 degrees, and a depth of 14.79 ft. The field characterization identified the sample as interstitial soil. This scoop of material was acquired after four clean scoops of soil were removed from just to the right of the P9-20 probe cluster. The sample material consisted of fine to medium granules of soil. The material was described as very moist granular soil located just to the left of the drum containing wood pieces and just to the right of the probe cluster. The drum containing wood blocks located at an angle of 10 degrees and a depth of 13 ft, when removed, uncovered a void that contained standing water. Soil was used to absorb the water. Scoop #1281 was acquired from 11 degrees and 1.79 feet below the void. It was suspected that some of the free-standing water was absorbed by the nearby soil. No sludge was present in the sample. The interstitial soil characteristics were described as fine to medium grade. According to the hue guide the sample was recorded as 5YR 6/4-10YR 5/4 (Geological Society of America 1991) (light brown to light yellow brown). No free liquid was present although the sample was moist to very moist. It was unknown whether the moisture was due to standing water absorbed earlier, or as the original state of the material in that location of the pit. No organic sheen was observable. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT11016G

Exposed dumped drums and drum liners were present nearby. A rusted drum and a stained bag were present. The integrity of nearby drums was described as poor as a result of being thoroughly corroded and rusted and exposed to significant moisture. The drum liners observed were listed as being in conditions ranging from fair to poor. Moisture was present in the sampling region. The soil did not appear to be stained, only moist. Cardboard pieces and rusted metal pieces were listed as nearby debris. Clear plastic bags with opaque, stained, yellow tape were also present.

Photographic Description P9GT11016G

The field characterization identified the sample as interstitial soil. During photography, the sample was described as clean soil. Very minor amounts of foreign materials were easily segregated (e.g., small piece of drum rust and a small wood piece). Rust was not abundant; a piece of white chunky material was evident and segregated. Small pieces (<5 mm) of basalt were noted and segregated when the sample was transferred into the petri dish for photography.

Table C-20. Data summary table for sample P9GT11016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT11016G	Soil, possible backfilled clean soil sample	2.45 ± 0.30	9.8 ± 1.6	2.1 ± 1.1	4.62 ± 0.61
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT11016G	8.74 ± 0.04	$1,060 \pm 150$	$2,170 \pm 190$	$7,400 \pm 6,300$	910 ± 590

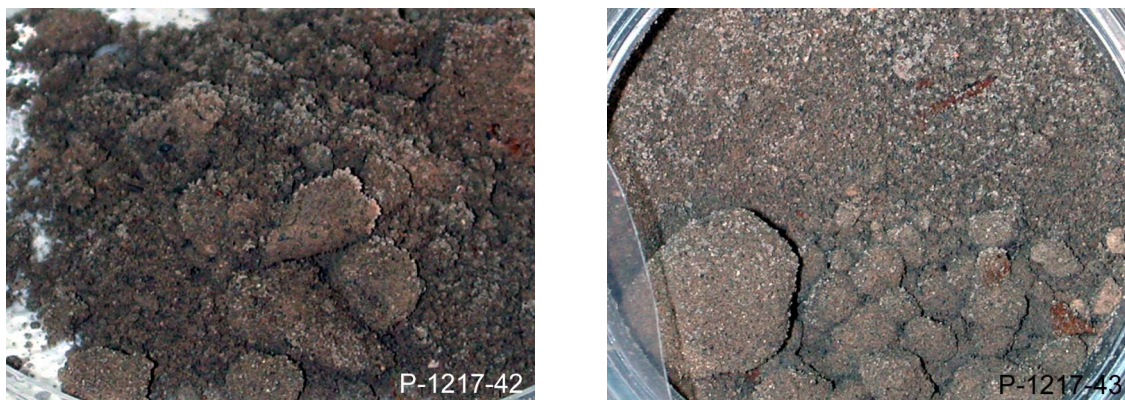


Figure C-20. A photographic image of sample P9GT12016G in a dish (left) in a jar (right).

Waste Description for P9GT12016G

Sample P9GT12016G was collected from scoop #1281 on February 14, 2004 at 22:42 hr at a reach of 9.42 ft, an angle of 11 degrees, and a depth of 14.79 ft. The field characterization identified the sample as interstitial soil. This scoop of material was acquired after four clean scoops of soil were removed from just to the right of the probe cluster. The sample material consisted of fine to medium granules of soil. The material was described as very moist granular soil located just to the left of the drum containing wood pieces and just to the right of the P9-20 probe cluster. The drum containing wood blocks located at an angle of 10 degrees and a depth of 13 ft, when removed, uncovered a void that contained standing water. Soil was used to absorb the water. Scoop #1281 was acquired from 11 degrees and 1.79 feet below that void. It was suspected that some of the free-standing water was absorbed by the nearby soil. No sludge was present in the sample. The interstitial soil characteristics were described as fine to medium grade. According to the hue guide (Geological Society of America 1991), the sample is recorded as 5YR 6/4-10YR 5/4 (light brown to light yellow brown). No free liquid was present although the sample was moist to very moist. It was unknown whether the moisture was due to standing water earlier absorbed, or as the original state of the material in that location of the pit. No organic sheen was observable. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT12016G

Exposed dumped drums and drum liners were present in near proximity. A rusted drum was present, additionally a stained bag was present. The integrity of nearby drums was described as poor as a result of the drum being thoroughly corroded and rusted and exposed to significant moisture. The drum liners observed were listed as being in conditions ranging from fair to poor. Moisture was present in the sampling region. The soil did not appear to be stained, only moist. Cardboard pieces and rusted metal pieces were listed as nearby debris. Clear plastic bags with opaque, stained, yellow tape were also present.

Photographic Description P9GT12016G

The field characterization identified the sample as interstitial soil. No visual signs of foreign material were present, except minor bits of drum rust were present. Rust was not significant in the sample. A small piece of possible off-white calcite was present.

Table C-21. Data summary table for sample P9GT12016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT12016G	Soil, possible backfilled clean soil sample	1.542 ± 0.094	<5.6	1.61 ± 0.77	5.3 ± 2.5
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT12016G	8.54 ± 0.09	$1,410 \pm 150$	$2,640 \pm 260$	$8,700 \pm 7,400$	N/D



Figure C-21. A photographic image of sample P9GT13016G in a dish (left) in a jar (right).

Waste Description for P9GT13016G

Sample P9GT13016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The scoop was collected as loose soil immediately beneath probe P9-20-06. The sample was collected from the front of the transfer cart. The field characterization identified the sample as interstitial soil. The leading edge was clumpy, similar to overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (yellowish brown). The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. No free liquid or absorbed water were present. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT13016G

The dig was immediately adjacent to P9-20 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT13016G

The field characterization identified the sample as interstitial soil. Visually the sample appeared to be clean soil without any foreign material. Some small, hard clay chunks were mixed with some of the loose soil. Clay chunks were easily broken apart revealing soil centers. One or two small pieces of calcite were present.

Table C-22. Data summary table for sample P9GT13016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT13016G	Soil, appears clean	0.103 ± 0.017	<4.1	<0.52	<1.2
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT13016G	8.76 ± 0.05	2,860 ± 590	4,260 ± 380	N/D	N/D

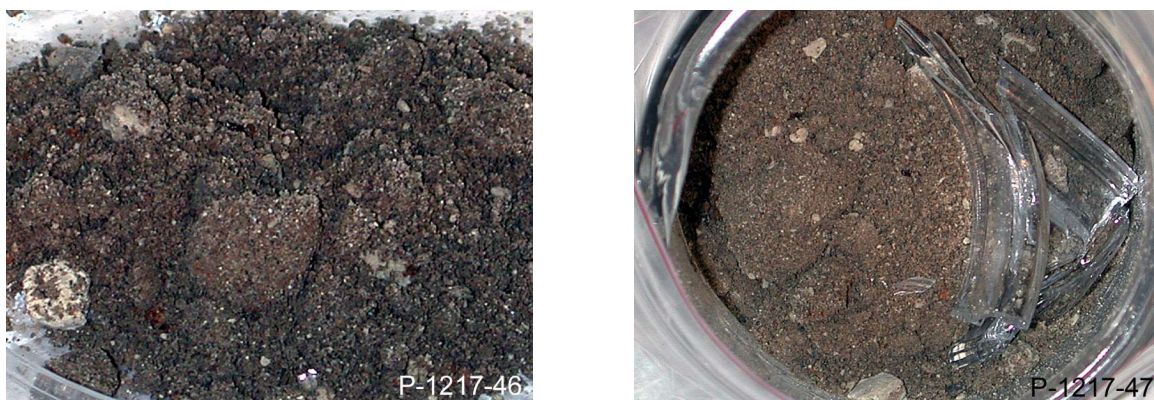


Figure C-22. A photographic image of sample P9GT14016G in a dish (left) in a jar (right).

Waste Description for P9GT14016G

Sample P9GT14016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little soil mixing had occurred. The field characterization described the waste material in the transfer cart as interstitial soil with identifiable white chunks of calcite rock. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present in the soil sample came from the cavity around the drum. The pit was very moist in that area. The transfer cart contained small particles of Series 743 organic sludge. The sludge was easily identified and segregated from the soil. Soil in the transfer cart was easily segregated from foreign materials. Neither free liquid nor absorbed liquid were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT14016G

No description were provided.

Photographic Description P9GT14016G

The field characterization identified the sample as interstitial soil. Visually, the sample was classified as a soil sample. A small amount of apparent white calcite chunks were present. White chunks were solid and hard. The surface features resembled calcium carbonate. A few spots of rust were present. As shown in the digital image, the sample jar was received with a broken rim at the time of photography.

Table C-23. Data summary table for sample P9GT14016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT14016G	Soil with <1% sludge	0.304 ± 0.028	<3.8	<0.52	1.67 ± 0.74
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT14016G	9.06 ± 0.05	960 ± 180	2,390 ± 140	970 ± 520	N/D



Figure C-23. A photographic image of sample P9GT15016G in a dish (left) in a jar (right).

Waste Description for P9GT15016G

Sample P9GT15016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little mixing had occurred. The field characterization described the waste material in the cart as interstitial soil with white chunks of apparent calcite. The sample was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. The material in the transfer cart contained a small amount of apparent Series 743 organic sludge that was easily identified and segregated from the soil. Neither free liquid nor absorbed liquid were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT15016G

No description was provided.

Photographic Description P9GT15016G

The field characterization described the sample as interstitial soil. Visually the sample consisted of soil with small amounts of foreign material (apparent calcite). A couple of rust spots were present.

Table C-24. Data summary table for sample P9GT15016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT15016G	Soil with <1% sludge	0.211 ± 0.023	<4.7	1.38 ± 0.31	21 ± 32
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT15016G	9.16 ± 0.08	660 ± 110	1,090 ± 130	43,000 ^a	N/D
a. The K _d value does not include a ± value because only one measurement was available.					



Figure C-24. A photographic image of sample P9GT16016G in a dish (left) in a jar (right).

Waste Description for P9GT16016G

Sample P9GT16016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little mixing had occurred. The field characterization described the waste material in the cart as interstitial soil with apparent white chunks of calcite rock. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. The material in the transfer cart contained a small amount of apparent Series 743 organic sludge that was easily identified and segregated from the soil. Neither free liquid nor absorbed liquid was present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT16016G

No description was provided.

Photographic Description P9GT16016G

The field characterization described the sample as interstitial soil. Visually the sample appeared as soil with some apparent white chunks of calcite. Minor amounts of foreign debris were present, such as drum rust.

Table C-25. Data summary table for sample P9GT16016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT16016G	Soil with <1% sludge	0.358 ± 0.022	<5.2	<0.52	1.28 ± 0.78
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT16016G	8.99 ± 0.09	848 ± 92	$2,720 \pm 410$	$2,420 \pm 350$	N/D

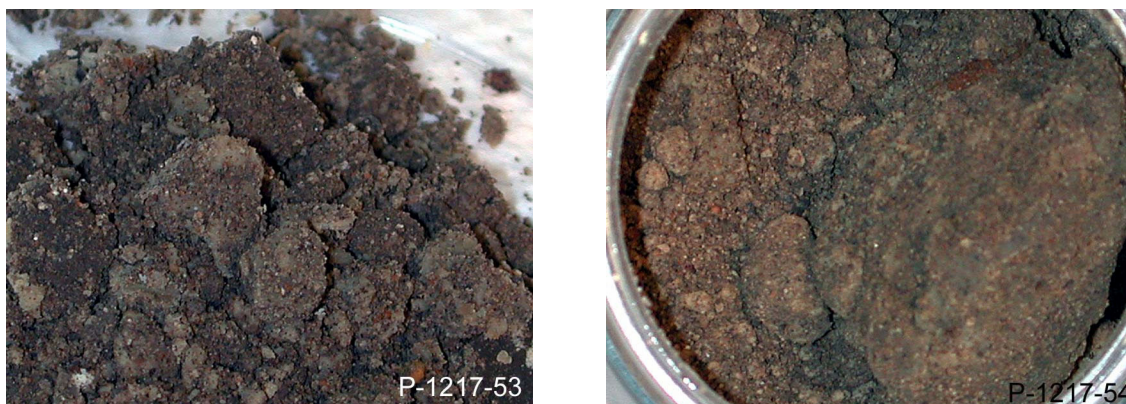


Figure C-25. A photographic image of sample P9GT17016G in a dish (left) in a jar (right).

Waste Description for P9GT17016G

Sample P9GT17016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The contents in the transfer cart contained mostly soil with a few discrete off-white chunks of unidentified material and some identifiable pieces of probable Series 743 organic sludge. Soil, unidentified materials, and probable sludge were easily segregated and clean soil samples were acquired. The scoop came from low in the pit in an area where little soil mixing had occurred. An intact waste drum was “plucked” from the angle of repose exposing behind it undisturbed soil. The heavy equipment operator was instructed to scoop into the cavity and remove soil. Soil that was collected was moist, but there were no free liquids visible. The intact waste drum contained no distinguishable markings, but was later noted to contain probable Series 743 organic sludge. The comment was documented that the scoop came from low in the pit where little mixing had occurred. Hence, the field representative stated that good interstitial soil samples were collected from a cavity around a corroded drum.

Description of Dig Face P9GT17016G

No comments were provided.

Photographic Description and Subsampling Notes for P9GT17016G

The sample was described as a soil that appears to have been saturated with organics or oil. The sample appeared moist and dark but not from water. The sample was described as being clumped. The sample contained in the jar was observed as being greater than 99% soil. Some pieces of rust and corroded drum were present, but could be segregated. Subsamples of soil free of foreign debris were obtained.

Table C-26. Data summary table for sample P9GT17016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT17016G	Soil “candied” with organic sludge that leaked from an adjacent drum	0.886 ± 0.083	<6.2	1.72 ± 0.69	4.2 ± 2.3
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT17016G	8.60 ± 0.13	$1,720 \pm 880$	$3,500 \pm 2,200$	$5,900 \pm 5,000$	$2,020 \pm 300$

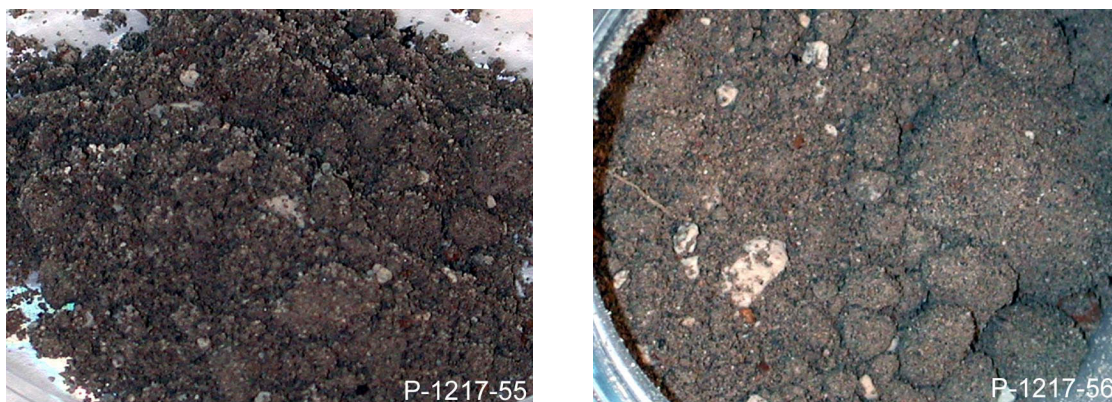


Figure C-26. A photographic image of sample P9GT18016G in a dish (left) in a jar (right).

Waste Description for P9GT18016G

Sample P9GT18016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little mixing had occurred. The field characterization described the waste material in the cart as interstitial soil with apparent white chunks of calcite. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. Soil and other materials in the transfer cart were easily identifiable and easily segregated. Neither free liquid nor absorbed liquid were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT18016G

No description was provided.

Photographic Description P9GT18016G

The field characterization described the sample as interstitial soil. The sample appeared to have chunks of clay and soil with hard off-white material resembling calcite present when examined for photography. The off-white chunks were small (1–2 mm in diameter). The soil was otherwise clean with a few spots of rust and a small piece of what appeared to be plant root material. No other major foreign debris was present.

Table C-27. Data summary table for sample P9GT18016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT18016G	Soil with <1% sludge	0.124 ± 0.047	<4.5	<0.52	1.34 ± 0.19
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT18016G	8.89 ± 0.20	850 ± 130	1,580 ± 240	N/D	N/D

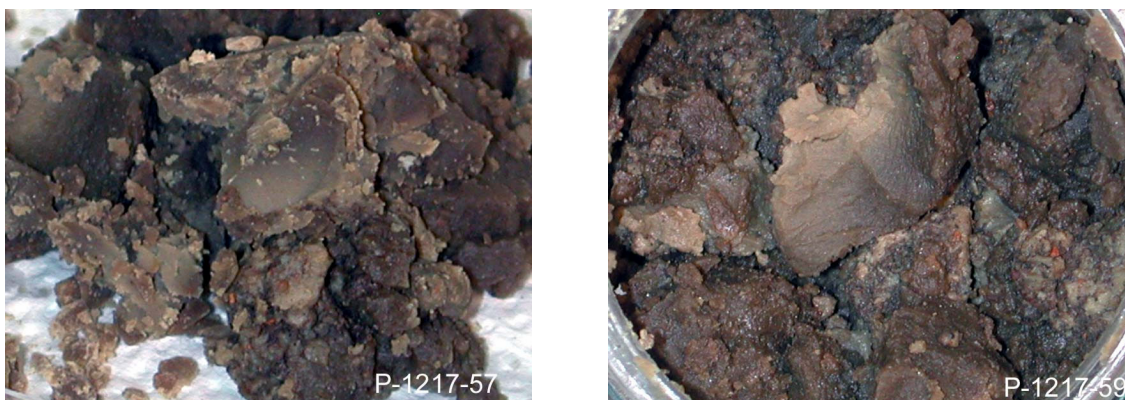


Figure C-27. A photographic image of sample P9GT19016G in a dish (left) in a jar (right).

Waste Description for P9GT19016G

Sample P9GT19016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little previous soil mixing had occurred. The field characterization described the waste material in the cart as mostly interstitial soil with apparent white chunks of calcite. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. The materials in the transfer cart were easily identifiable and easily segregated. Neither free liquid nor absorbed liquid were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT19016G

No description was provided.

Photographic Description P9GT19016G

The field characterization described the sample as interstitial soil. When the sample was examined for photography, it was noted that the sample appeared to be saturated with organic material that had occurred over an extended period. The sample had a greasy sheen. Only clumped soil was present with no visible foreign materials.

Table C-28. Data summary table for sample P9GT19016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT19016G	Soil “candied” with organic sludge that apparently leaked from an adjacent drum	1.20 ± 0.10	<6.3	1.86 ± 0.75	8.94 ± 0.51
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT19016G	8.76 ± 0.01	$8,300 \pm 4,700$	$18,000 \pm 11,000$	$15,000^a$	N/D
a. The K_d value does not include a \pm value because only one measurement was available.					



Figure C-28. A photographic image of sample P9GT20016G in a dish (left) in a jar (right).

Waste Description for P9GT20016G

Sample P9GT20016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little previous mixing had occurred. The field characterization described the material in the cart as interstitial soil with apparent off-white chunks of calcite. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. The materials in the transfer cart were easily identifiable and easily segregated. The sample had no free liquid or absorbed liquid present. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT20016G

No description was provided.

Photographic Description P9GT20016G

The field characterization described the sample as interstitial soil. Visual analysis at the time of sample photography showed the sample as having some off-white chunks of apparent calcite and a small bit of drum rust mixed with the soil. Visual examination and review of sample photographs displayed no evidence of sludge or debris foreign inclusions.

Table C-29. Data summary table for sample P9GT20016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT20016G	Soil with <1% sludge	1.038 ± 0.063	<3.75	<0.52	2.1 ± 1.4



Figure C-29. A photographic image of sample P9GT21016G in a dish (left) in a jar (right).

Waste Description for P9GT21016G

Sample P9GT21016G was collected from scoop #2239 on February 17, 2004 at 02:05 hr at a reach of 7.99 ft, an angle of 9 degrees, and a depth of 14.69 ft. The scoop was low in the pit, where little previous mixing had occurred. The field characterization described the waste material in the cart as interstitial soil with apparent off-white chunks of calcite. The scoop was collected from a cavity around a corroded drum. The moisture that appeared to be present came from the cavity around the drum. The materials present in the transfer cart were easily identifiable and easily segregated. Neither free liquid nor absorbed liquid were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT21016G

No description was provided.

Photographic Description P9GT21016G

The field characterization described the sample as interstitial soil. At the time of photography, the sample had a few white pieces of apparent calcite.

Table C-30. Data summary table for sample P9GT21016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT21016G	Soil with <1% sludge	0.467 ± 0.032	<4.9	0.64 ± 0.33	1.43 ± 0.48



Figure C-30. A photographic image of sample P9GT22016G in a dish (left) in a jar (right).

Waste Description for P9GT22016G

Sample P9GT22016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The scoop was collected as loose soil immediately beneath probe P9-20-06. The sample was collected from the front of the cart. The field characterization identified the sample as interstitial soil. The leading edge was clumpy, resembling overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (moderate yellowish brown). The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. Neither free liquid nor absorbed water were present. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT22016G

The dig was immediately adjacent to P9-20 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT22016G

The field characterization described the sample as interstitial soil. The sample showed a few large clay chunks, a few apparent calcite chunks, but no apparent foreign material.

Table C-31. Data summary table for sample P9GT22016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		^{241}Am (nCi/g)	$^{239+240}\text{Pu}$ (nCi/g)	^{241}Am (nCi/g)	^{239}Pu (nCi/g)
P9GT22016G	Soil, appears clean	0.0087 ± 0.0019	<4.6	<0.52	<1.2
Field Sample	pH	K_d (mL/g)			
		^{235}U	^{238}U	^{239}Pu	^{241}Am
P9GT22016G	8.82 ± 0.04	$1,760 \pm 450$	$3,040 \pm 260$	N/D	N/D



Figure C-31. A photographic image of sample P9GT23016G in a dish (left) in a jar (right).

Waste Description for P9GT23016G

Sample P9GT23016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The sample was collected as loose soil immediately beneath probe P9-20-06. The scoop was collected as fine soil near the top of the pile from the transfer cart. The field characterization identified the sample as interstitial soil; the leading edge was clumpy, resembling overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (moderate yellowish brown). The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. Neither free liquid nor absorbed water were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT23016G

The dig was immediately adjacent to P9-20 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT23016G

The field characterization described the sample as interstitial soil. Detailed visual analysis at the time of photography confirmed the field characterization of a soil sample. The sample showed a few large clay chunks. Some minor foreign material and a small piece of drum rust were present.

Table C-32. Data summary table for sample P9GT23016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT23016G	Soil with <1% sludge	0.489 ± 0.058	<4.7	0.54 ± 0.63	1.41 ± 0.64



Figure C-32. A photographic image of sample P9GT24016G in a dish (left) in a jar (right).

Waste Description for P9GT24016

Sample P9GT24016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The sample was collected as loose soil immediately beneath probe P9-20-06. The scoop was collected as fine soil near the top of the pile from the transfer cart. The field characterization for the sample was interstitial soil resembling overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (moderate yellowish brown). The leading edge of the sample was clumpy. The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. Neither free liquid nor absorbed water were present in the sample. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT24016G

The dig was immediately adjacent to P9-20 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT24016G

The field characterization described the sample as interstitial soil. Detailed visual analysis at photography confirmed the field characterization of a soil sample. The sample showed a few large clay chunks but no apparent foreign material. Some calcite pieces were present.

Table C-33. Data summary table for sample P9GT24016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT24016G	Soil, appears clean	0.160 ± 0.017	<4.8	<0.52	<1.2
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT24016G	8.78 ± 0.04	675 ± 93	2,110 ± 130	N/D	N/D

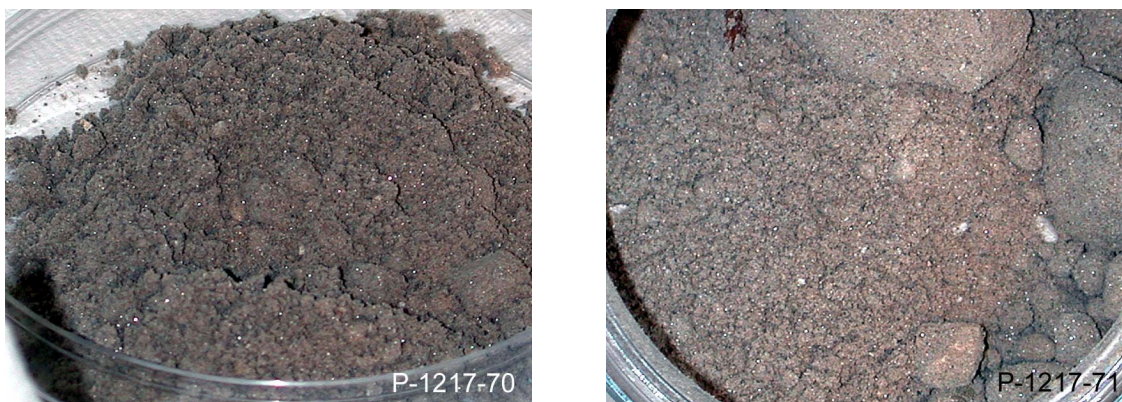


Figure C-33. A photographic image of sample P9GT25016G in a dish (left) in a jar (right).

Waste Description for P9GT25016G

Sample P9GT25016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The sample was collected as loose soil immediately beneath probe P9-20-06. The sample was collected as fine soil from near the bottom of pile in the transfer cart. The field characterization for the sample was interstitial soil resembling overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (moderate yellowish brown). The leading edge of the sample was clumpy. The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. No free liquid or absorbed water were present. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT25016G

The dig was immediately adjacent to P9-20 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT25016G

The field characterization described the sample as interstitial soil. Detailed visual analysis at the time of photography confirmed the field characterization of a soil sample. The soil sample had a highly unusual white sparkly coating on the soil. This sample did not appear clean.

Table C-34. Data summary table for sample P9GT25016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT25016G	Soil mixed with sludge	0.302 ± 0.044	<5.4	0.73 ± 0.70	1.9 ± 1.7

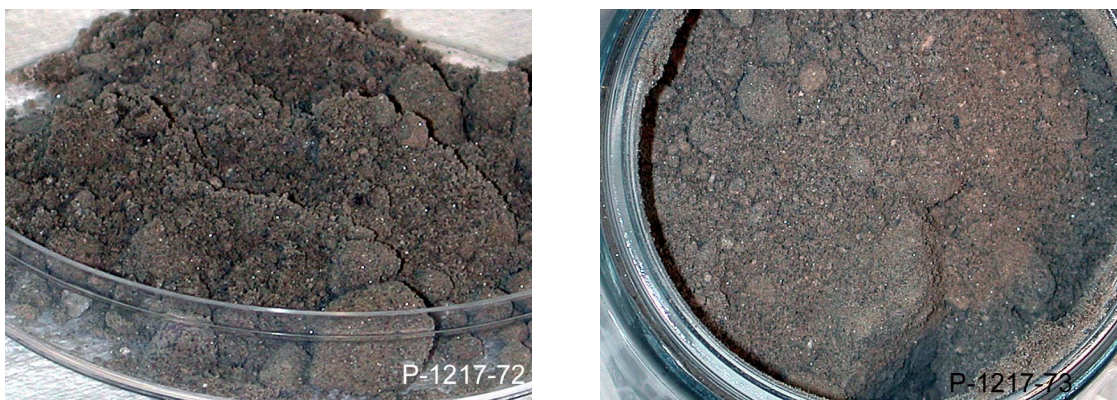


Figure C-34. A photographic image of sample P9GT26016G in a dish (left) in a jar (right).

Waste Description for P9GT26016G

Sample P9GT26016G was collected from scoop #2244 on February 17, 2004 at 10:28 hr at a reach of 9.89 ft, an angle of 11 degrees, and a depth of 14.76 ft. The scoop was collected as loose soil immediately beneath probe P9-20-06. The sample was collected as fine soil from near the bottom of the pile in the transfer cart. The field characterization for the sample was interstitial soil resembling overburden. The sample color characteristics were described as 10YR 5/4 (Geological Society of America 1991) (moderate yellowish brown). The leading edge of the sample was clumpy. The main body of the sample was fine and dry. No pieces of bag were present. The sample did not have any characteristics of sludge. No free liquid or absorbed water were present. In the laboratory, after visual inspection and photographs, subsamples were obtained for analysis.

Description of Dig Face P9GT26016G

The dig was immediately adjacent to P9-20-06 probe and beneath the skewered drum. Mixing of soil appeared to have occurred. No container markings were present. The integrity of the drum was defined as heavily corroded. Intact bags were located within the skewered drums. The immediate dig area was dry and no soil stains were apparent.

Photographic Description P9GT26016G

The field characterization described the sample as interstitial soil. Detailed visual analysis at the time of photography confirmed the field characterization of a soil sample. No apparent foreign material was present in the sample. The sample was visibly clean.

Table C-35. Data summary table for sample P9GT26016G.

Field Sample	Field Characterization	Gamma Spectroscopy		ICP-MS	
		²⁴¹ Am (nCi/g)	²³⁹⁺²⁴⁰ Pu (nCi/g)	²⁴¹ Am (nCi/g)	²³⁹ Pu (nCi/g)
P9GT26016G	Soil, appears clean	0.206 ± 0.015	<5.5	<0.52	<1.2
Field Sample	pH	K _d (mL/g)			
		²³⁵ U	²³⁸ U	²³⁹ Pu	²⁴¹ Am
P9GT26016G	8.52 ± 0.17	1,077 ± 81	3,240 ± 410	N/D	N/D